REMARKS

Applicants, their principal representatives in Germany and the undersigned have carefully reviewed the Final Office Action of August 7, 2008 in the subject U.S. patent application, together with the prior art cited and relied on by the Examiner in the rejections of the claims. In response, claims 134 and 135 have been further amended, without raising any new issues and without requiring the Examiner to conduct additional searching, in an effort to more clearly define the subject invention over the prior art and to place these claims in condition for allowance. It is believed that this Amendment After Final Rejection is an earnest effort on the part of the undersigned to place the application in condition for allowance. Reexamination and reconsideration of the application, and allowance of the claims is respectfully requested.

In the Final Office Action of August 7, 2008, it was asserted that the Information Disclosure Statement filed on April 28, 2008 did not include a copy of DE 668 877. A duplicate copy of that document is enclosed. The undersigned notes that the PTO/SB/08a and b forms, which were filed with the Information Disclosure Statement, listed the sole German reference and also listed 32 publication references. A review of the electronic file, on the PAIR system, shows a total of 33 NPL documents as having been filed with the Information Disclosure Statement. Three of those NPL documents, as highlighted in yellow on the enclosed print-out of the PAIR image file wrapper, show a page count of 3 pages, the number of pages contained in the DE 668 877 document. The Examiner is requested to review those three documents, which are not available on-line to the undersigned, to see if one of them is not, in fact, the DE 668 877

document. The assistance of the Examiner in this regard is appreciated.

In the Final Office Action, claims 135 and 172 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,328,437 to Maylander in view of U.S. Patent No. 3,734,487 to Treff. Claims 134, 136, 153-157 and 164 were rejected under 35 U.S.C. 103(a) as being unpatentable over Maylander in view of Treff and further in view of U.S. Patent No. 5,379,211 to McVenes. Claim 158 was rejected under 35 U.S.C. 103(a) as being unpatentable over Maylander in view of Treff and McVenes and further in view of U.S. Patent Application Publication No. 2003/0071162 to Moser. Claims 159-161 were rejected under 35 U.S.C. 103(a) as being unpatentable over Maylander in view of Treff and McVenes and further in view of U.S. Patent No. 4,848,632 to Mack. Claim 165 was rejected under U.S.C. 103(a) as being unpatentable over Maylander in view of Treff and McVenes and further in view of U.S. Patent No. 5,707,054 to Loquet. Claim 166 and 168-170 were rejected under 35 U.S.C. 103(a) as being unpatentable over Maylander in view of Treff and McVenes and further in view of DE 10003025 to Hartmann. Claim 167 was rejected under 35 U.S.C. 103(a) as being unpatentable over Maylander in view of Treff and McVenes and Hartmann and further in view of U.S. Patent No. 5,263,414 to Lehrieder. Claim 171 was rejected under 35 U.S.C. 103(a) as being unpatentable over Maylander in view of Treff and McVenes and further in view of U.S. Patent No. 6,139,003 to Michalik.

As discussed in detail in the Substitute Specification of the subject application, as depicted in the drawings, and as recited in the currently amended claims, the subject invention is directed to a device for processing a web of material. Specifically, the processing device is a device that is usable to longitudinally cut a previously printed

web, to then longitudinally form the longitudinally cut webs or the resultant partial webs and to possibly superimpose several of the partial webs one on top of each other. Such web processing machines are typically used in the preparation of documents from webs of different widths. The resultant documents have various sizes, again based on the widths of the initial webs and also based on the production format that is being employed.

In accordance with the present invention, the web processing machine includes drive arrangements for use in the movement of the web cutter or cutters, the former or formers and the turning bars, if such turning bars are provided, laterally with respect to the web travel direction. These drive arrangements are usually in the form of drive motors and lead screws which operate to shift the positions of the web cutters, fold formers and turning bar units in response to commands issued by a control unit.

In the present invention, as recited in both of claims 134 and 135, the web processing device is provided with a control system whose purpose is to control the drive arrangements for the web cutter or cutters, the web former and, if provided, the turning bar unit. The control system is used to preset or preposition the various web processing devices before the web processing machine is placed in operation.

In accordance with the present invention, as recited in both of currently amended claims 134 and 135, the control system is adapted to control each of these web processing devices in response to the receipt of print preparation stage data. Such data has been provided to the control system for a print preparation stage. A print preparation stage is essentially a pre-production stage of a printing press. In the print preparation stage, as discussed at paragraph 076 of the Substitute Specification, the

document to be printed is laid out, usually using some type of computer. The individual printing plates, that will print the individual pages of the resultant product, are created. The printing plates are arranged on computer simulated cylinders of what are typically a plurality of computer simulated printing couples which will be required to produce a multiple page product. The paths of the various webs or partial webs through the printing press are determined. The widths of the webs and partial webs are determined and their arrangements, with respect to each other, is also considered. The print preparation stage is where the document to be produced is planned, laid out, and essentially created. Every detail that will be required to produce a complete document, such as a magazine or a newspaper, is determined in the print preparation stage. Once the print preparation stage has been properly set up, the data that will be generated, as to the proper location of the longitudinal web cutter or cutters, the positioning of the longitudinal fold former or formers and the like can be provided to the control system. The control system then sets or presets each of the web processing components. based on the information provided from the print preparation stage, so that when the device for processing a web is put into operation, there is no initial waste of material.

In prior devices, the web processing device has been adjusted during its initial start-up. Such a procedure is wasteful of materials. Also, the web processing machine set up is done on the machine itself. In other words, the actual web processing machine is set up by feeding a web or webs through it and by adjusting the position of the various web components, while the web is positioned on the actual web processing machine, and while that machine is operating at a very slow speed. Such a set up procedure, in what is essentially a trial and error procedure, is not an effective use of

the web processing equipment which is not being profitable while it is sitting still or while it is operating at a greatly reduced speed during a set up procedure.

In the rejection of claim 135 as being unpatentable over the Maylander and Treff references, it was asserted that Maylander discloses a longitudinal cutter and a former with a former drive mechanism. It was also asserted that Maylander shows a control system adapted to control a former drive in response to print preparation stage data, citing column 2, lines 40-53. The secondary reference to Treff was cited as showing a cutting arrangement drive mechanism. Treff was also cited as showing a control system adapted to control the cutting arrangement drive mechanism in response to print preparation stage data supplied to the control system, as is asserted as being described at column 1, lines 50-59 of the Treff reference.

The undersigned has carefully reviewed both of the Maylander and Treff references and does not find any support in either document for the Examiner's assertion that these references use data from a print preparation stage to control the drives for the longitudinal cutter or for the longitudinal fold former. In the Maylander patent, there does not appear to be any discussion of the use of a print preparation stage to provide data to a drive mechanism for either the longitudinal cutters or to the longitudinal fold former or formers. The discussion at column 2, lines 40-53, is directed to a recitation of the use of laterally shiftable formers to provide an adjustment of a total web width. However, there does not appear to be any suggestion, or teaching of the use of a print preparation stage to supply data to a control system for use in the presetting of each of the web processing components.

The secondary reference to Treff does not provide the teachings which are

missing from the Maylander reference. Treff is directed to a web associating apparatus. It uses an arrangement of shiftable turning bars to associate a plurality of ribbons or partial webs. As disclosed at column 1, lines 50-59, the various ribbon widths are handled by inputting a pattern number into a computer. The computer then computes the required positions for the slitter wheels, angle bars and compensation rollers. It then supplies the appropriate signals for positioning these components in their required positions. The Treff reference is generally silent with respect to how a pattern number is obtained. It is assumed that each pattern number is used to identify a particular arrangement of webs and partial webs. The input of the pattern number causes the computer to properly position the various components. At the bottom of column 8, the Treff patent discusses the possibility of making corrections to the core memory of the computer, based on a determination that an actual position of a component, as determined by the press operation, is better than the position set by the computer, based on the selected pattern. It thus appears that each pattern is based on data that was obtained during an operation of the web processing device itself.

As was discussed previously, the use of the web processing device itself, in an initial set-up procedure, is wasteful of both time and equipment. The pattern data of the Treff reference appears to have been generated by use of the actual machine. That is not what the subject invention, as recited in currently amended claims 134 and 135 utilizes. The subject invention, as is positively recited in both of the independent claims uses data that has been provided to the control system from a print preparation stage. As discussed above, that print preparation stage is not a part of the actual web processing device. The use of print preparation stage data, to provide input information

to the control system, does not require that the actual web processing device be taken out of service. The print preparation stage is a separate entity, not a part of the web processing device.

The rejection of independent claim 134 over Maylander in view of Treff and further in view of McVenes suffers from the same failure as does the Maylander and Treff combination. In the McVenes reference, there is disclosed a magazine publishing system. As discussed at column 1, lines 40-45 of the McVenes reference, the prior procedure for setting up a press, to accomplish a specific task, would require the press operator to manually locate web turning bars and the like. If the task at hand was a repetition of a previous printing task, the press operator might well have notes to assist him in configuring the press. It would still take a skilled operator at least 15-20 minutes to reconfigure a folder, for example. As has been discussed above, the prior art steps of reconfiguration of a press take the press out of service for significant periods of time.

In the McVenes invention, a microprocessor is used, as discussed at column 2, lines 20-26, to return the turning bars to a position that is the same as was used in a previous job. The McVenes reference is thus very similar to the Treff reference in this regard. Treff discusses the use of a pattern that is entered into a computer. Treff does not explicitly discuss how the pattern is obtained. However, Treff at least implies that the pattern can be improved by its revision by the press operator. If the press operator modifies a location of a press component and determines that the result is better, he can amend the pattern.

In McVenes, the set-up of the press is accomplished using a microprocessorbased control system. The system returns the press components to a previously established position. The previously established position was created previously, when the same job was previously run, or when a prior job, with the same page width and page layout was run. The problem still remains that at some point in time, the actual web processing device had to be taken out of active service to run the initial set up. If a new job is to be run, and it is unlike any previously run job, then both Treff and McVenes will require that the press operator manually position the various components, run the press at slow speed, make necessary adjustments and somehow retain these adjustments or settings so that they can be used again, if the same task is again performed. When a completely new task is to be run, the press still has to be taken out of service and has to be configured, essentially manually, to accomplish the new task, at least in accordance with the teachings of the Treff and McVenes references. If there is no pattern or data established from a previous run, the press still has to be configured while it is out of service.

In the subject invention, as recited in claims 134 and 135, as they were presented in the previous amendment, and as is emphasized in the present Amendment after Final Rejection, the data is supplied from a print preparation stage. Such a print preparation stage is one in which a computer is relied on to configure printing plates and their arrangement on forme cylinders, to print a product having a specific physical configuration. The print preparation stage is able to determine web or partial web widths and arrangements, which will be required to have the resultant product properly formatted and formed. This print preparation stage data is usable by the control system of the subject invention to control the locations of the web cutter or cutters, the location of the formers and the location of the turning bar units, all of which

are a part of the device for processing a web, without requiring that the web processing device itself be used. It is thus believed that the use of print preparation stage data, supplied to the control system, and usable by the control system to control and to preset the web processing machine components is not shown, or suggested in the prior art.

The utilization of print preparation stage data to provide information to the control system, which sets the longitudinal cutters, the fold formers and the turning bars, if utilized, is a substantial advantage over the prior art procedures, as typified in the Treff and McVenes references for two reasons. In both Treff and McVenes, the pattern information or the data from a prior run requires that at some time in the past, the actual web processing machine had to be taken out of service and reconfigured essentially manually, on a trial and error basis. If a new printing job is to be accomplished, for which there is no pattern number, or no data from prior jobs, the web processing machine has to be configured in the time-consuming, manual, trial-and-error procedure.

In the subject invention, the print preparation stage provides all of the data which will be required by the web processing machine to produce the final product. All of the page locations, web widths, web locations required to result in the desired page arrangements, and the like, are determined in the print preparation stage, which is typically a computer. The actual web processing machine is not required to be used to obtain this print preparation stage data.

If the printing task to be undertaken by the web processing machine is a completely new one; i.e. if it is not a repetition of a previous task, so that there is no former pattern or data to rely on, the print preparation stage still supplies all of the data.

This all new data is again provided to the control system which is in functional connection with the longitudinal web cutter drive mechanisms, the former drive mechanisms, the turning bar drive mechanisms, and whatever other web processing machine components that may need to be positioned to accomplish the production of the product, in accordance with the data that has been supplied by the print preparation stage. The prior art does not teach or suggest this procedure.

All of the rest of the claims now pending in the subject application depend from believed allowable, currently amended claims 134 and 135. These claims are thus believed to also be allowable.

SUMMARY

Claims 134 and 135, the two independent claims now pending in the subject U.S. patent application, have been amended to more clearly patentably define the subject invention over the prior art cited and relied on. It is believed that these changes will not require the Examiner to conduct additional searching, do not raise new issues and are an earnest effort by the undersigned to place the application in condition for allowance. Such action, and passage of the subject application to issue, is respectfully requested.

Respectfully submitted,

Burkard Otto HERBERT et al.
Applicants

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November 7, 2008 JONES, TULLAR & COOPER, P.C. P.O. Box 2266 Eads Station Arlington, Virginia 22202 (703) 415-1500 Attorney Docket: W1.2098 PCT-US

DEUTSCHES REICH



AUSGEGEBEN AM **10. DEZEMBER 1938**

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PATENTSCHRIFT

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M 137860 XII/15d

Tag der Bekanntmachung über die Erteilung des Patents: 17. November 1938

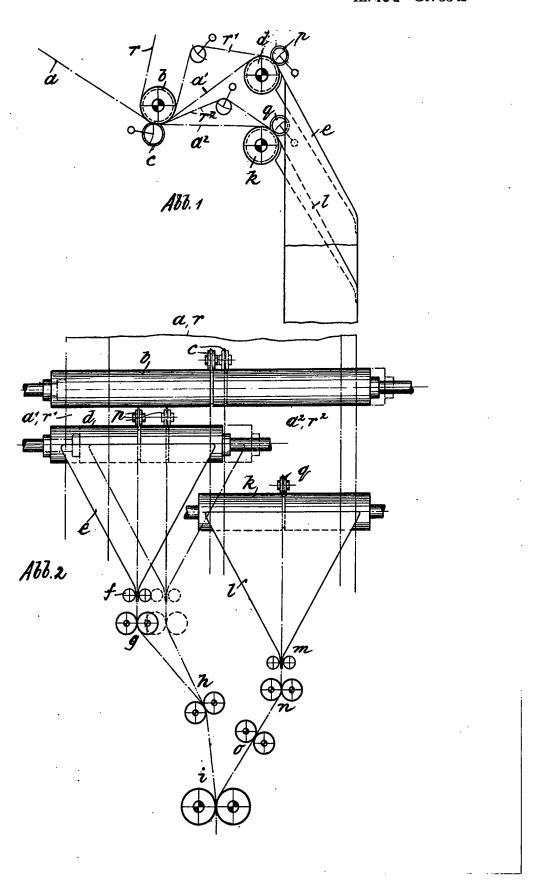
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Wilhelm Hoch in Bern

ist als Erfinder benannt worden.

Maschinenfabrik Winkler, Fallert & Co. A.-G. in Bern

Verstellbarer Doppelfalztrichter für Rotationsdruckmaschinen



Maschinenfabrik Winkler, Fallert & Co. A.-G. in Bern Verstellbarer Doppelfalztrichter für Rotationsdruckmaschinen

Patentiert im Deutschen Reiche vom 23. April 1937 ab

Die Erfindung betrifft einen verstellbaren Doppelfalztrichter für Rotationsdruckmaschinen, bei dem zwecks Falzens verschieden breiter Papierbahnen wenigstens ein Falztrichter 5 zusammen mit den zugehörigen Falzwalzen seitlich verstellbar ist.

Bei den bisher bekannten Einrichtungen dieser Art mußten Mittel vorgesehen werden, um bei dem Verschieben der Trichter auseinander den Zwischenraum auszufüllen. In dem einen Fall wurden zu diesem Zweck die beiden Trichter an den einander zugekehrten Seiten mit rechenartig ineinandergreifenden Einschnitten und Vorsprüngen versehen.

Von diesen bekannten Anordnungen unterscheidet sich die Erfindung dadurch, daß die in Stirnansicht nebeneinanderliegenden, gegeneinander verstellbaren Trichter samt den zugehörigen Trichter-, Zug- und Falzwalzen in verschiedenen Höhenlagen angeordnet sind.

Bei dieser Einrichtung wird das seitliche Verstellen der Trichter gegeneinander ermöglicht, ohne daß Mittel zum Ausfüllen des Zwischenraumes vorgesehen werden. Der hierdurch erzielte Vorteil besteht einmal in der Vereinfachung des Einstellens, dann aber auch darin, daß die Papierführung auf den Trichtern gegenüber der bekannten Anordnung stets völlig normal bleibt. Insbesondere wird das Abschmutzen oder Abschaben der Druckfarbe verhindert.

Auf der Zeichnung wird beispielsweise eine Ausführungsform des Erfindungsgegenstandes schematisch dargestellt.

5 Abb. 1 zeigt eine Seitenansicht der Papierführung über die Trichterwalzen und Trichter bei zwei Papiersträngen und

Abb. 2 eine Stirnansicht der Trichter und Walzen.

do Der gedruckte Strang a läuft unter die doppelbreite Trichterwalze b und wird in der Längsmitte durch ein Kreismesser c geschnitten. Die eine Hälfte a¹ dieses geschnittenen Stranges a geht über die Einzeltrichterwalze d und den Trichter e zu den Zugwalzenpaaren j, g, h und i zu der nicht dargestellten Querschneidvorrichtung und Auslage. Die andere Hälfte a² läuft über die Einzeltrichterwalze k zu dem Trichter l und über die Zugwalzen-

paare m, n, o und i, wo sie über die gefalzte 50 Stranghälfte a^1 zu liegen kommt und mit dieser zu der Querschneidevorrichtung und Auslage weitergeht.

Gewünschtenfalls kann jede Stranghälfte a^1, a^2 durch ein Kreismesser p, q in der Mitte 55 geschnitten werden, so daß hinter den Zugwalzen i nur Einzelblätter übereinanderliegen.

Wird ein zweiter doppelbreiter Strang r gedruckt, so läuft dieser ebenfalls über die Trichterwalze b und wird zusammen mit dem 60 Strang a durch das Kreismesser c in der Längsmitte geschnitten. Von den beiden Hälften geht die eine Hälfte r^1 über die Einzeltrichterwalze d zu dem Trichter e und die andere Hälfte r^2 über die Einzeltrichterwalze e zu dem Trichter e und die andere Hälfte e über die Einzeltrichterwalze e zu dem Trichter e und Stranghälften e zu dem Trichter e Diese Stranghälften e zu dem Trichter e und gehen mit diesen durch die Zugwalzen e zu dem e nut e zu der Querschneidevorrichtung und Auslage weiter. 70

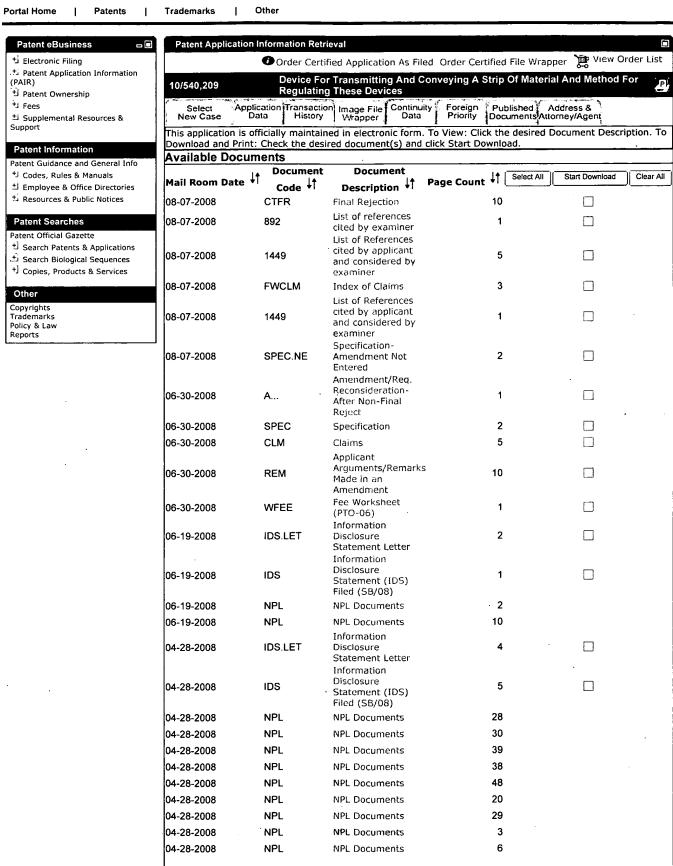
Es können selbstverständlich auch noch weitere gedruckte Papierstränge in derselben Weise behandelt werden.

Nach der Erfindung werden die nebeneinanderliegenden Falztrichter e, l in verschiedener Höhe angeordnet, um dadurch Raum zwischen denselben zu schaffen, so daß sie je
nach der Strangbreite seitlich verstellt werden
können. Bei der Anordnung gemäß Abb. 2
ist angenommen worden, daß der Trichter l
feststeht, während der Trichter e mit der
Einzeltrichterwalze d und dem Kreismesser p
seitlich verstellbar ist. Dementsprechend muß
auch ein seitliches Verstellen des Kreismessers c gegenüber der Walze b erfolgen 85
können.

PATENTANSPRUCII:

Verstellbarer Doppelfalztrichter für Rotationsdruckmaschinen, bei dem zwecks Falzens verschieden breiter Papierbahnen 90 wenigstens ein Falztrichter zusammen mit den zugehörigen Farbwalzen seitlich verstellbar ist, dadurch gekennzeichnet, daß die in Stirnansicht nebeneinanderliegenden, gegeneinander verstellbaren Trichter 95 (e, l) samt den zugehörigen Trichter-, Zug- und Falzwalzen in verschiedenen Höhenlagen angeordnet sind.





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